

on several occasions. The last time we employed it was in the case of a young man who had been troubled with diarrhœa for three weeks. During the last week of the period the complaint was coupled with severe indigestion and total loss of appetite. Having nothing at hand to give him we broke off the root from a botanical specimen of *Mitella pentandra* and divided it into two parts of about ten grains each. He chewed and swallowed one piece on the spot (about 9 A. M.) and ate the remainder at 11 A. M. Before noon he actually complained of great hunger and spoke with evident relish, to our amazement, of what he expected to have for dinner. We saw him again at 2 P. M., and he felt much better, telling us how he had enjoyed his dinner. The next morning we saw him again, and he was well in every respect, having a good appetite and digestion, his bowels being free and regular in their action. Now this man had been sick, and looked sick, for three weeks, yet that little bit of root made him well in less than twenty-four hours. We would not say that such decided results would take place in every instance, but, as mentioned before, we have used the root of this plant on several occasions with beneficial results. By accident we discovered the good quality of the plant in question. It is our custom to taste every root we find new to us, and that is the way we found out. Thinking this might be new to the public, and that the knowledge of it might be of practical value to others, we submit these remarks to the readers of the GAZETTE. —F. W. ANDERSON, *Great Falls, Montana*.

**Celery Leaf Blight** (*Cercospora Apii* Fres.)—This disease annually destroys about one half of the celery planted in this section; last year (1886) the loss occasioned by the parasite was not so great as in former years, owing, no doubt, to the dry weather which prevailed in this section. Frequent showers and heavy dews followed by hot sunshine favors the growth of the fungus. The fungus usually appears in this section about the first of July, and at the approach of cool weather, which usually comes on in September, the fungus gradually disappears. When fresh the conidia germinate readily (in three hours) by sending out a delicate, colorless thread from each cell. So long as the celery leaves are kept dry but few of the conidia germinate, but if the leaves are frequently moistened the fungus quickly destroys them. Celery protected from the direct rays of the sun, either by natural means, as planting under trees, or by screens made for the purpose, is rarely attacked by the parasite.

On September 26, 1886, several healthy celery plants that were growing in the open air were lifted and planted in the green-house. About one week later sowings of the conidia of *C. Apii* were made upon the leaves of several plants. Fifteen days later the leaves where the sowings had been made showed the pale green pustules which always appear just before the hyphæ and conidia become visible. Owing to the cool weather which came on about the time the pustules made their appearance, the



fungus made no further progress, except several spots which showed the brownish hyphæ, but no conidia. The plants upon which no sowings were made remained healthy. If the experiment had been made earlier in the season the development of the fungus would have been more rapid. A form of *C. Apii* is quite common on *Pastinaca*, but is quite distinct from *C. Apii* on cultivated celery. In the *Journal of Mycology* (vol. I, p. 37), the form on *Pastinaca* is included under *C. Apii* Fres. Mr. Ellis thinks, however, that the form on *Pastinaca* might be called *C. Pastinacæ* with propriety, as distinct from *C. Apii* Fres.—B. T. GALLOWAY, *Columbia, Mo.*

**An American Papaver.**—Last summer Mr. John Spence, a florist of Santa Barbara, collected many plants in the high mountain regions of Santa Barbara County, which he submitted to me for examination. Among other novelties were the beautiful orange-colored blossoms of a *Papaver*. In the absence of root or foliage, it was not easy to tell whether it was *P. Rhœas* of Europe or something new; but, judging from the location in which it was obtained, I suspected it might be something new, and sent it to Dr. Gray. On a visit to the same locality later in the season, Mr. Spence obtained ripe seed, and succeeded in raising perfect plants, specimens of which he has sent to Dr. Gray, who decides that it is a new species. Being the first American representative of the genus, Dr. Gray very appropriately christened it *Papaver Californica*. Mr. Spence says the plant is found in quantity where the ground had been burned over the previous season, and that the large masses of brilliant orange flowers could not fail to attract attention. The same plant was found last year, by other individuals, in two different localities in the Santa Ynez mountains, and under the same conditions, on ground that had been burned over the previous year; but we have no report of its having been collected before last year.—MRS. R. F. BINGHAM.

**Vermicularia phlogina** Fairman (n. sp.)—Perithecia very delicate, minute, superficial, sparingly clothed with bristles of varying length, subhyaline above, darker below, continuously or sparingly septate, 60–100  $\mu$  long and 5–7  $\mu$  thick, tips (especially the longer ones) obtuse: sporules oblong, fusoid, hyaline, slightly curved, endochrome at length imperfectly divided in the middle,  $15-20 \times 2\frac{1}{2}-3 \mu$ .—Differs from *V. Coptina* Pk. in its smaller, paler perithecia and different bristles.

On leaves of *Phlox divaricata*. Ridgeway, Orleans County, New York, July, 1886.

This *Vermicularia* occurs on the phlox leaves, (generally after flowering of the host), often mixed with a *Cladosporium* (*C. epiphyllum* Nees?) sometimes pure, and at times suspected leaves have only the *Cladosporium* present.—CHARLES E. FAIRMAN, *Lyndonville, New York.*